
IN THE

United States Circuit Court of Appeals

FOR THE

NINTH CIRCUIT

D. J. MURRAY MANUFACTURING
COMPANY, a corporation,

Appellant,

vs.

SUMNER IRON WORKS, a corporation,
and SILVERTON LUMBER COM-
PANY, a corporation,

Appellees.

APPELLEES' BRIEF

*Upon Appeal from the United States District Court
for the District of Oregon*

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HON. R. S. BEAN, *Judge*

STATEMENT OF FACTS

The question for determination in this cause is the validity of claim 12 of what is known as the Cleveland Patent for improvement in log handling mechanism, issued September 7th, 1909, to Charles

E. Cleveland and by him afterwards assigned to the plaintiff.

This claim reads as follows:

"12. In a log-handling mechanism, the combination of a bed-plate provided at its outer end with a shaft-bearing; a shaft extending through said bearing; an arm in operative relation with the shaft, said arm being bifurcated and straddling the bearing formed upon the outer end of the bed-plate; a power cylinder pivotally mounted upon the bed-plate; and a piston-rod working in the cylinder and connected at its outer end to the adjacent end of the arm."

This claim has been analyzed in the brief of the Appellant which for convenience of discussion we reproduce here:

(a) "A bed-plate (3 or 4) provided at its outer end with a shaft bearing (8);

(b) A shaft (7) extending through said bearing;

(c) An arm (39 or 41) in operative relation with the shaft;

(d) *Said arm being bifurcated and straddling the bearing formed upon the outer end of the bed plate:*

(e) A power cylinder (38 or 40) pivotally mounted upon the bed-plate;

(f) A piston-rod working in the cylinder and connected at its outer end to the adjacent end of the arm."

A full cut of the model of this combination is shown on page 4 of the Appellant's brief. The rock-shaft, piston-rods, cylinders and the connections for the same with the arms may be eliminated as unpatentable as they are all clearly defined in the Simonson patents, which will be hereinafter referred to. When this is done we have left only the straddling of the bearing by the bifurcated arms for the shafts at the outer ends of the bed plates, and the bed plates themselves.

Excluding the element "d", which refers to the bifurcated arms straddling the bearings, this claim describes a complete operative combination which was not only very old, but is admitted to have been known to the Patentee, Cleveland, when he made his alleged invention in issue. (Page 162, Trans.)

It is important to note that the arm designated as "c" and being either of the two arms indicated in the patent by 39 and 41, is bifurcated at both ends but the bifurcation at its lower end only is called for in claim 12.

Its upper end is bifurcated to receive the outer end of the piston rod 47 to which it is pivotally connected by a pin clearly shown but not identified by a reference numeral, so obvious and of such familiar use is it. Said pin is itself a short shaft and insofar meets element "b" of the foregoing analysis of claim 12. So constructed it also meets the terms of element "c", the piston rod 47 "in opera-

tive relation with the shaft." If this shaft or pin is keyed into or firmly attached to the arm you have a perfect example of a "bifurcated arm straddling a bearing."

It is to be noted further that this claim, insofar as the element "d" is concerned, does not claim a patent upon any particular shape or form of bed plate. Cleveland made a mechanical improvement in making a straight bed plate instead of the old crooked type in use on the older type log turner but he did not try to patent this improvement. He could not have secured a patent on a straight bed plate for straight bed plates were old at the time of his application. The parties to this cause have stipulated that "machines substantially the same as that shown in Defendants' Interrogatory, Exhibit "A," were of public knowledge or use in the United States prior to April 13, 1907." (Trans. page 26). The Court will note that Cleveland's application was dated two years after that date. A photograph of the model referred to in this stipulation is shown on sheet 288 of the Transcript. An outline cut of Defendants' Exhibit 27 is shown on page 6 of the supplemental transcript.

The Cleveland bed plate had diverging sides and those of Defendants' Exhibit 27 are parallel. However, this is a mechanical difference. If it were not the issue would be the same, for claim 12 does not attempt a monopoly of the straight bed plate whether parallel or diverging. Therefore, we may eliminate the bed plate from the case, except insofar as it contains at its outer end a bearing in which the shaft rocks and which is straddled by the bifurcated arms. The fact that the shaft rocks in

this bearing is immaterial because old. The bifurcation of the arm to straddle the bearing is the only element in claim 12 about which there is any real issue. It is conceded by the Appellant in its brief that the use of a bifurcated arm *per se* as an element in various types of machinery is old. It is therefore and must be conceded that the Appellees have a perfect right to use a bifurcated arm precisely the same in all respects as the one employed by plaintiff, provided, only that it shall not straddle the bearings on the bed plate which carries the shaft. It is to this very last degree of refinement of limitation that the language of claim 12 reduces the issue.

It may be interesting and of benefit to the Court to detail a brief statement of the history of log turner patents as shown by the record in this case:

When on April 13, 1909, Cleveland, in respect to the patent sued upon, entered the field of invention by filing the application upon which the said patent issued, he found the art crowded, as will appear from the list of log turner patents introduced in evidence, on behalf of Defendants.

The earliest log turner patent of that list is the Schofield patent, dated December 9, 1884 (Defendants' Exhibit 4). (Page 188 Transcript). That patent shows a Log Loader in which logs are disposed in lateral succession upon an inclined sideway "E," consisting of duplicate members. The inclination of the skidway tends to deliver, by action of gravity the logs to an ordinary carriage "A." Such a carriage was designed and adapted to take one log at a time, and afterwards to feed it endwise

to the saw or saws of the mill. The usual equipment of such a carriage, included then as it does today, head-blacks with knees to hold a log which are shown clearly in figures 1 and 2, and which, being then of common every day use in saw mills, are not identified by reference, character, or description. The logs delivered to the carriage simply by gravity would be necessarily brought to a standstill by encounter with the knees of the head-blacks, but means for separating the foremost log from the other logs was still necessary.

The Schofield patent to meet that requirement shows and describes a pair of cant levers pivotally mounted one on each member of the skidway. The function of the cant levers is to interrupt the downward roll of the logs on the skidways "in such manner that but one log will be loaded upon the carriage at a time," (Schofield patent, page 1, lines 65-66). The Schofield patent contains, therefore, the germ of every subsequent log-loader. Besides the cant levers, the said patent introduces by name the "nigger" "D," to which some of the witnesses on the stand make reference. Its function is the same today substantially as it was forty years ago, namely, to rotate a log about its longitudinal axis upon the carriage. The sawyer, Marler (Trans. pp. 81-82) says: "This turns the logs to the carriage." The operations of the cantlever mechanism and of the "nigger," respectively, are subject to mechanism under manual control.

The Schofield patent is described with a degree of detail because that patent shows how old in the art complete log turners are and because the drawings and specifications of that patent, being exceeded-

ingly simple and clear, aptly serve to illustrate the foundation upon which was built subsequent development of details in the art.

Next after Schofield, follows, in the development of the art, the "Simonson Log Turner," as it is known in the art today, and which is the type of turner in general use to this day. The machines, both of Plaintiff (see Cleveland's deposition, page 157), and of Defendants are of that type. In fact it was not until the Simonson's patents were about to expire that Cleveland "gave serious thought to the designs of an improved Simonson turner." (Trans. 157).

The Simonson patents are six in number, (Defendants' Exhibit 5½ to 10, inclusive), but the distinctive features of the Simonson invention, towit, a rock-shaft with its hook arm and push arm and an engine for actuating the rock shaft, are fairly disclosed in his earliest patent, No. 408,760, issued August 13, 1889, on an application filed December 17, 1888. (Defendants' Exhibit 5½) (Page 195 Trans.) Substantially all that he subsequently invented was in the nature of modification or elaboration of his original invention.

Attention is drawn to the fact that not one of the Simonson patents shows only other bed plate than the floor of the mill upon which his machine is installed. However, magnified in importance to serve the occasion of this suit a particular form of bed plate may be, it appears to have been nevertheless regarded by Simonson, the parent of the art to which plaintiff's and defendants' machines belong, as being nothing more than what

any mechanic was competent to devise, bed plates being, as the Court of course knows, in common use in every kind of heavy machinery. Otherwise, there is little room for doubt that Simonson would have made application for patent, as indeed, by reason of its rejection, he may have done without the fact being brought to light in a patent. At all events, it is a fact admitted, that two forms of bed-plate, namely those called crooked bed-plates and straight bed-plates, although not patented, have been used on Simonson log turners for a long period antedating Cleveland, even up to and including the present day. Crooked bed-plates were known to Cleveland before he made the alleged invention of his patent in suit (Compare Defendants' Interrogatory Exhibit B, with Cleveland's Deposition, p. 160 Trans.) and are shown in the patent to Kratsch (Defendants' Exhibit 20). A full mechanical equivalent of a bed-plate, if it is sought to contradistinguish it from a mill floor, is shown in the earliest Simonson patent (Defendants' Exhibit 5½), namely, logways "b," which serve both for the support of logs on the turner, and also for cooperatively assembling the engine and the shalt.

After the year 1891, during which the latest Simonson patent issued, a period of more than four years elapsed before any attempt at improvement in log turners appears to have been made. Then, on November 6, 1895, one McNerney applied for letters patent which were issued to him on April 28, 1896 (Defendants' Exhibit 13). (Page 228 Trans.)

Next, on April 11, 1899, a patent was issued to E. E. Fitzgerald (Defendants' Exhibit 14) (Page

242 Trans.) This patent is important in that it makes disclosure (Fitzgerald patent, page 1, lines 26 to 33, inclusive) of means intended to prevent that breakage of bed-plates which Thos. B. Sumner testifies was due mainly to the dropping or pounding of the logs on the bed-plates, (Trans. pp. 156-159), rather than to tension strain on them, to which Cleveland attributes breakage of bed-plates (Cleveland's Deposition, Trans. p. 157).

After the last named patent issued, only two patents appear of record, prior to the issue of the patent sued on. They are patent No. 852,231, issued April 30, 1907, to D. A. Kennedy, and patent No. 992,212, (page 263 Trans.) issued May 16, 1911, to W. H. Kratsch (Page 278 Trans.). Neither is of importance except that the last named patent, which is for improvements in skid lifting devices, shows, in Fig. 1, of the drawings, an integral hook-arm not lettered but indicated in said figure by the hook F attached to it. It is bifurcated at both ends for connection, respectively, with the piston rod and the rock shaft of a log turner.

Besides the patents above enumerated, in addition to Defendants' Exhibits 24 and 25, supported by the testimony of Thos. B. Sumner, numerous early patents are introduced to show the wide extent to which bifurcated arms straddling bearings had been employed generally in the mechanical arts all prior to Cleveland's alleged invention. Such patents are shown in Defendants' Exhibits 1, 3, 5, 11, 15, 16 and in others not necessary to particularize. Among those, Patent 382,760, (Defendants' Exhibit 5) issued May 15, 1888, to James B. Erwin, is, in all material respects, a substantial anticipation of

Claim 12 of the Cleveland patent sued on. True, it is found in a cognate art, and is not a log turner; but it shows with only one variation, the combination of all the mechanical elements called for in said claim 12—straight bed-plate and all—in Air Compressor. It is also true that the object of the air compressor is to compress air (a gas) in a cylinder by aid of a piston and its rod, instead, as in a log turner to utilize steam (gas) pressure in a cylinder to drive a piston. The function in the one instance is merely the reversal of that in the other, but the two mechanical combinations are substantially identical, except as to the aforementioned single variation. That variation is that the arm N of the Erwin patent is not bifurcated, but is pivotted to the bed-plate(base E) between close fitting projecting lugs NM, on said base, by a pivotal bolt L. The superior mechanical advantages of a broad pivotal connection over a narrow one is not only elementary and was of course as well understood forty years ago as it is today, but in the Erwin patent it is well exemplified in pivotal connection between the cylinder A and the bed-plate or base E. Said connection is a bifurcated one pivoted on a bolt C, between lugs DB on the base.

Defendants' Exhibit 5 would be of greater potential importance except that the subject matter of defendants' Interrogatory Exhibit A, (page 288, Trans.) comprehends all Erwin shows, and in view of the stipulation heretofore referred to that this machine was in public knowledge and use prior to April 13th, 1907, said date being two years prior to the filing date of Cleveland's application. Wherefore Ex. A" constitutes a legal bar to the extent of its disclosure.

Counsel for Appellant complains that the pertinency of the patents introduced in evidence for the defendant was not explained by the Appellees. The various patents issued to Simonson, Schofield, Fitzgerald, McNerney, and Kennedy, have heretofore been explained as intending to show the progress of the art, with respect to the development of log turners. We have already explained at some length the pertinency of the patent granted to Erwin for improvement in air compressors.

The other various patents were introduced with the purpose of showing that a bifurcated arm straddling a single bearing was old in the art at the time Cleveland made his application for a patent upon the log turner in question here. The Coller patents, shown on sheets 178-181 of the Transcript shows a Harvester Pitman bifurcated at both ends and straddling the bearing upon the Harvester sickle. See the arm "C" in figures 1, 2 and 4.

The Godwin patent shown on sheets, pages 182-185, of the Transcript were improvements in oscillating engines and shows a bifurcated arm straddling a single bearing, which is clearly shown in figures 2 and 5. The crank shaft and connecting pistons does not bear any letter or numeral identifying the same but are clearly shown in the drawing. If the operation of this engine was reversed so that the crank shaft would operate the piston instead of the piston turning the crank shaft you would have a perfect example of a bifurcated arm straddling a single bearing, and operating substantially as does the arms in the Cleveland patent.

Wheeler patent for a Pitman shown on sheets

186-187 of the Transcript shows a bifurcated arm in figures 1 and 2, straddling a single bearing. This is shown particularly well in figure 1.

The Powers patent is for a steam engine. (Sheets 219-223, of the Transcript.) Figure 1 shows a bifurcated arm in the connecting rod F' connecting the crank shaft G with the piston rod D.

In the Rhodes patent for a gas engine, pages 224-227 Transcript, is also shown a bifurcated arm straddling a single bearing in the two crank shafts, numbered 3 and 3X, connected with the piston 4.

In the McNerney patent for log loader and turner, sheets 228-241 of the transcript a bifurcated arm is shown in figure 2 on page 229, being a built up or fabricated arm M and M straddling the bearing C3.

The Carter patent for Connecting Device shown on sheet 52-254 of the Transcript. Figures 4 and 6 show the bifurcated arm clearly. In figure 4 the connection between the arm 6 with the shaft and straddling the bearing 15 is clearly shown.

The Bottkowski patent for Valve Mechanism for engines shown on sheet 255-259, of the transcript shows the bifurcated connecting rod 5 connecting the piston with the crank shaft 4 and straddling a bearing not numbered. A reversal of the operation of this engine would also clearly illustrate that the crank shaft itself is a bifurcated arm straddling a single bearing.

In the Stanley patents for a Gasoline Engine shown on sheets 270-274 of the Transcript there is

an excellent illustration of the bifurcated arm straddling a single bearing in the connecting rod F' straddling the bearing on the crank shaft B. (Fig. 2, Page 271 Transcript.) The boxes carrying the bearings are numbered F2.

In the Lindberg and Fitzgerald patent for oscillating engines, sheets 275-277 of the Transcript, the bifurcated arm straddling a single bearing is shown in the valve stem 16 bifurcated at 17 and straddling bearing 19.

The attention of the Court is also called to the testimony of Mr. Sumner on sheets 65 and 66 of the Transcript wherein he refers to the photographs of a shingle machine brought out in the year 1906 which shows a bifurcation of the arm which drives the carriage back and forth. (Defendant's Exhibit 23), and also the photograph of the Swing Trim with bifurcation at both ends, which Mr. Sumner states represents a machine built prior to 1906. (Defendants' Exhibit 24).

The Simonson patents for log turners, No. 448,591 and 448,592, shown on sheets 207-214, Transcript, both show a divided hook arm. In the first patent, upon page 207, the hook arm is represented by "E" and the space bar by "e", and in the second patent the hook arm is designated in figure 1, page 210, by "E," and the space bar by "e." A cut of the arm "E" of the second patent referred to is produced on page 9 of the Supplemental Transcript.

The question as to whether this hook arm is a bifurcated arm was the subject of considerable testimony in the trial of the case below. Mr. Thomas, one

of the witnesses for the defendant, in speaking of this arm says that this is an arm bolted together, which is in effect just the same as if it were cast together. For all intents and purposes to use, it is one. In fact these three part are one for use. It is a bifurcated arm and it is carried in operative relation the shaft C shown on the drawing. (Pages 74-75 Transcript.)

Hines, in speaking of this arm says that he thinks you can design one separate piece with a bolted connection that is entirely satisfactory but he would not bolt the two arms together in that way for the reason that it would require an awful lot of machine work. He says that the perfectly obvious thing to do would be to cast it in one piece. (Page 108 Trans.)

Demangeon, one of the plaintiff's witnesses, in speaking of this arm says that it could be cast in one piece as well as built up, and that the art of casting in one piece or building it up of a plurality of pieces was perfectly well known in the art. (Page 147 Trans.)

We believe that a review of these patents and of the testimony of the witnesses hereinbefore set out will sufficiently establish to the satisfaction of the Court that the use of bifurcated arms straddling a single bearing was old in the art at the time that Cleveland made application for his patent.

Cleveland, in his deposition (Trans. 159) testifies that the bed-plates as contained in the Simonson machines were all built with an offset, or, in other words, the bearing at the end of the bed-

plate in which the shaft rotated was not in a center line with the steam cylinder, but was to one side of the same. The arms were constructed with a single bearing on the shaft as shown in Defendant's Exhibit B. (See cut Trans. 288.) He says:

"In my construction the shaft bearing of the bad-plate is in direct line with the center of the cylinder and push arm and thereby equalizes the strain. The advantages I proposed to secure by the changed construction was to get a stronger and more symmetrical machine." (Trans. page 160.)

Counsel for Appellant has quoted this language of Cleveland in his brief.

We desire to call the attention of the Court to Defendant's Exhibit 27, cut of which is shown on page 6 of the Supplemental Transcript. It will be noted that the bearing of the bed-plate in this machine is in direct line with the center of the cylinder and the push arm so that the strain which Cleveland attempted to care for as claimed by him, is equally cared for in the machine shown as Exhibit 27. The only difference is that in Exhibit 27 there is a double bearing on the shaft while in the Cleveland machine (Defendant's Exhibit 26) there is a single bearing on the shaft. But the construction of a machine with a single bearing on the shaft as against a double bearing on the shaft is not in any manner designed to better withstand the thrust of the cylinder, as claimed by Cleveland, because in each of these machines the thrust of the cylinder is in direct line with the push arm. Indeed Cleveland only claims that the forked arm with

a single bearing is better designed to stand the side thrust from the logs on the carriage when the carriage is moving back and forth. This conclusion of Cleveland's is disputed by the witnesses for the defendant even if this added element of strength was patentable, which we contend is not. However, if, as claimed by Cleveland, his design of a straight bed-plate in combination with the bifurcated arm straddling a single bearing, made a better machine he did not attempt in his patent to cover a design of bed-plate. As a matter of fact, he could not do so, because straight bed-plates were known in the art as admitted by him and by the stipulation, at the time he filed his application for a patent.

Hines, the expert witness for the plaintiff, in comparing these two machines, Defendant's Exhibits 26 and 27, respectively, states:

"Exhibit 26—if you subject that bed frame to compression there would be some tendency for the arms to spread apart at the trunnions. This is prevented by the two tie rods C and D and by the bolts in bed-plate, but the structure acts all together, as all bed-plates do. It is very compact, and for the same strength, a minimum amount of metal. Now, Defendant's Exhibit 27, I feel quite certain, can be made amply sufficient for the purposes it is intended, provided proper care is taken throughout. (Trans. 106) in fact, I see no reason why it could not be, but this frame, I think personally, is a little out of proportion to the front end." (Trans. pp. 105-106.)

“This bed-plate, (Defendant’s Exhibit 27), can be constructed to do just exactly what the bed-plate shown in the Cleveland model does, but in doing it, in the first place, when you shove the arms up against the log you have a stress in the bed-plate, you would have a compression lengthwise of the bed-plate.” (Trans. page 96.) Now in general, in designing structures or machines, if we can take an A-frame to stand a compression we would naturally do it; we certainly would not take a V-frame. *I concede that you can make this bed-plate equally as strong and equally effective, but you can’t make it in the same way, or as clean-cut and natural design as that one there.”* (Trans. 97.)

Witness Thomas, (Trans. 75), testifies that the floor can be called a bed-plate if it was strong enough to be a bed-plate.

“COURT: What is the purpose of the bed-plate in this patent?

A. To hold the parts together.

COURT: That is all the purpose?

A. That is all; to carry them, to hold them together.

COURT: It performs no function in the operation of the machinery?

A. No. It may be designed different ways and will work just as well if properly designed.

“If the floor were made strong enough it would be equivalent to a bed-plate, if the floor were made of iron, for instance, it would be all right.” (Trans. 76.)

With relation to the strength of the bed-plates in the old Simonson turner we desire to call the attention of the Court to the very pertinent testimony of Mr. Sumner on page 151-152 of the Transcript. He says that if you will take an old Simonson turner today with a crooked bed-plate and take the improved skid lifter, attach it to the old Simonson turner he don't believe you will have any broken bed for this reason; that under the old type in the raising of the skids the cams were on the main shaft; then as you would roll that and raise the skids up and the logs were turning away, all pounding was on the trip skids and the skids rested on the main shaft. When one of these immense logs is turned over and it comes down smash on the skids; the trip-skids are skids that are located on the sides here; that is supposed to take in modern practice now—actuated by a single cylinder—it takes this heavy pounding and this heavy jar off from the bed. Under the old method it was all on the shaft because the cams were all on the main shaft, and the end of the skid rested on the cams so the whole pounding the full force of the blow was always on the shaft and that was what happened; the crooked arm having such a small bearing on the wood, with this constant pounding kept pounding the narrow end of that into the wood and that was what caused the breakage; it wasn't because it was crooked, because the strain was endwise or the reverse.

In reference to the liability of breakage of these

arms from the side thrust of the log which Cleveland testified was greatly diminished in his machine by reason of the bifurcated arm straddling a single bearing, there was considerable testimony. On cross examination, however, the witnesses generally admitted that they had no knowledge of such breakage. In fact, Marler, testifies that he had never broken an arm nor a bed-plate, but he had seen an arm at the St. Helens Lumber Company at St. Helens strapped back together with bars of iron and rivets and this was back in 1916. (Trans.84-85.)

It is to be noted, however, that Marler did not testify that this breakage had been caused by the side thrust of the logs.

Hines did not testify with respect to any breakage, except in respect to a structurally defective detail with respect to the hook arm, which was corrected. (Trans. 126.)

In this connection there is a discrepancy which should be observed. The hook arm is in effect guarded on both sides of it by push arms which are in line and are parallel to it. Manifestly no obstruction could hit the hook arm without first passing the push arm.

Demangeon, another of plaintiff's witnesses, (Trans. page 143), testifies that he has known of no breakage of either arms. On the contrary, Mr. Sumner, from forty years in experience as an actual manufacturer, testifies that he has observed many breakages of push and hook arms of this manufacture but cannot call to mind of ever seeing a fractured arm that he noticed the fracture would

be parallel to the shaft. It has always been parallel to the cylinder, so it would indicate when the strain came and the breakage occurred was always in the turning or pushing of the logs. (Trans. 148-149.)

But perhaps the best evidence of all is the Sum-chines which they are now manufacturing, have ner Iron Works and the Allis-Chalmers in the ma-abandoned the Cleveland type of arm. (See Defendant's Exhibit 22 and Plaintiff's Exhibit 19). In this construction the push arm is forked with straight sides and has two bearings on the shaft instead of one as in the Cleveland type. It is true it was testified that the object in adopting this construction was to permit of the operation of what is known as the Hill Nigger through the fork of the push arm but if the bifurcated arm straddling a single bearing was so essential to the strength of the machine it would seem that the parties now manufacturing this turner would not abandon that type of arm for the sake of installing the nigger at a convenient place, because they can still retain the old arm and put this nigger in a separate place beside the shaft and between the hook and push arms. Certainly if the Cleveland type of arm was so much better in the way of strength in withstanding the side thrusts of logs as was claimed by the plaintiff, the parties now manufacturing this turner, after their actual experience in the operation of the same would be extremely slow to abandon the crooked arm merely to find a convenient place to install the nigger. (Trans. pp. 46, 47, 48, 128, 129).

Defendant's Exhibit 26, shows a solid boss attached the arm, said boss being simply an exten-

sion of the hub so as to give a greater bearing on the shaft.

With respect to this exhibit, Hines, the Plaintiff's witness, testifies that he thinks this could be made the equivalent of the push arm shown in the Cleveland type by the expenditure of more money and more metal. (Trans. p. 119).

Q. Then the only difference that you see between these two arms is one in respect to expense?

A. Not entirely in respect to expense; at the same time in this arm you must remember, this arm here, it isn't the single arm that we have to consider, it is the nice combination of design. Compactness, minimum cost of manufacture. I think that I very distinctly stated, was authorized to do so, that any manufacturer who wished to manufacture the split bed type with bifurcated arm, even straddling the bearing was welcome to do so, and we certainly would not waste our time in any patent litigation, and yet, despite the fact that we have substantially stated this we still want to manufacture in that way. (Trans. p. 119).

Cleveland had seen an old Simonson turner in which the Boss passed through the shaft. (Trans. p. 164).

Thomas, in speaking of Defendant's Exhibit 26, said that there was not much to chose with the arms alone but when it is assembled into the machine with long enough hub to give the same strength that

the arm has on Exhibit 26 and that hub having a bearing on each side, having two bearings on the plate, on each side of the longer hub, I should say this construction was stronger. I think the whole structure in this Defendant's Exhibit 28 would be stronger than the arm shown in Defendant's Exhibit 26 if combined in such a structure as shown in Defendant's Exhibit 27. (Trans. 78).

The legal presumption of validity which accompanies the granting of a patent is impaired in the present instance, not only by the failure of the patent office to cite any references, but also by the fact that the patent was granted upon an inadequate showing of the actual state of the prior art. Upon the showing now made it is hardly conceivable it would have allowed claim 12. It would have demanded, of course, some showing of the patentable quality in the subject matter defined by that claim but there was none to offer. The patentee, Cleveland, in reference to claim 12, even today, when he has another opportunity presented to him, for making such showing, cannot make it. In his deposition, (Trans. p. 160), he testifies that the advantages he proposes to secure by the changed construction was to get a stronger and more symmetrical machine by making the arm bifurcated and thereby having a more substantial bearing on the shaft and stronger arm and having the shaft bearing on the bed-plate in direct line with the center of the cylinder, which construction was better to withstand the thrust of the cylinder. It is to be noted, of course, that the construction which he refers to, insofar as it was intended to withstand the thrust of the cylinder, is identical with the construction

shown in Defendant's Exhibit 27, (Supp. Trans. p. 6).

On cross examination he testified as follows:

Q. Did you introduce any new principle of operation into the Simonson log turner by your invention, so far as it is defined in claim 12?

A. I do not think that a new principle was introduced, as I understand it, by my invention. My improved log turner so far as defined in claim 12, turned the log in the same way as the old Simonson turner, but by a mechanism, which I regard as better. (Trans. p. 162).

Plaintiff's expert, Mr. Hines, confirms Cleveland's testimony as follows:

Q. Can you point out any difference between this Exhibit 26 and Exhibit 27 other than mechanical variation? Is there any difference in principle in the operation of the two machines?

A. They operate substantially in the same way. You can take this machine, and if you are given a good designer, build a design of that and find out what is wrong and correct in here and there. Yes, you can get a machine that will work and turn your logs. (Trans. p. 120).

Hansen's only reason for preferring the Cleveland type is that the bifurcated arm gives better strength and the whole thing looks more symmetri-

cal, neater, more mechanically constructed, according to his notion. (Trans. p. 134).

It is true that Hines testified that in his opinion the cost of constructing the machine shown, (Defendant's Exhibit 27), would be about Fifty Dollars more than the cost of the machine shown in Defendant's Exhibit 26. He did not attempt to itemize this cost by stating what the actual cost of the bed-plate would be and the actual cost of two bearings on the arm instead of one. However, it can be safely assumed that the larger item of this cost would be in the additional casting required by the bed-plate and as we have stated before, the question of type of bed-plate used is not in issue in this case. It is apparent to most anyone that the use of one additional bearing would be very slight and this is emphasized by the fact that both the Allis-Chalmers Company and the Sumner Iron Works, in machines which they now build, have installed two bearings instead of one, upon the push arm. The additional expense of this extra bearing must be rather slight in view of the fact that this additional bearing is placed upon the shaft in order to afford a more convenient location for the nigger. It must be remembered that bearings are scattered along this shaft according to the size of the machine. In Demangeon's testimony, (Trans. p. 146), he states that a shaft ordinarily requires one, two or three bearings, dependent upon the length of the logs to be handled. That would make in the case of the Cleveland bed-plate, five bearings on it. In the case of the straight arm type there would be seven required.

However, the question whether there is any ad-

vantage of a bifurcated arm over a straight arm is foreign to the issue. The issue is limited to a bifurcated arm straddling a bearing. No evidence of advantage resulting from the arm or combination claimed by Cleveland is offered. The Plaintiff's expert, Mr. Hines, continually admits that such combination is no better than that shown in Defendant's Exhibit 27, except in respect to cheapness of construction, (Trans. p. 121), which the authorities hereinafter cited will show to be unpatentable.

Plaintiff's expert, Mr. Hansen, testifies in effect that Defendant's Exhibits 26 and 27 are substantially mechanical equivalents. (Trans. pp. 124-125).

Counsel for the Appellant intimates in his brief that the Sumner Iron Works copied the Cleveland design in the making of their log turner and quotes quite extensively from the evidence of Mr. Sumner upon this point. However, we submit that Mr. Sumner's testimony shows conclusively that he did not copy the Cleveland device but that the machine built by the Sumner Iron Works was a gradual development of their knowledge of log turners by observation and practical working. Mr. Sumner testifies as follows: (Trans. p. 34).

"I have never seen anything of the turners as built by Geddings and Lewis at the time we were making our changes. I have seen some of their printed matter, but the straight bed came to my mind for the reason that—I think it was in 1906—I think it was in 1906—I was up to the Frazer mill figuring on a job. They were going to rebuild the whole mill, and the old

turner, I don't want this word Simonson to apply to that particular machine, but that type of machine; there was one of those old turners taken out of that old mill, and afterwards sold and went up to the Port Moody Mills; that was back in 1906 or '07; that had the straight bed; the beds had never broken; that naturally brought the straight beds to our attention. And then, while I would say that our arm resembles the push-arm and the hook-arm, resembles that a great deal, we made the same mistake there that we were trying to avoid in the crooked bed. That very same turner has gone on, and you might say improved the old Simonson crooked bed; but what has it done? It has transferred that weak point to the arm; the point that is weakest in the whole machine. It is weak today. That is why we today have trouble with the arm, because the breakage is too great. I call to mind a part of the Cleveland deposition that said with divided bed the chances for shrinkages and poor castings were greater, but he has transposed it from that to the arm, the part that should be the most substantial. So, as far as bifurcation is concerned, go back to the horse drawn wagon, it has bifurcated thills. I presume the old chariot would show bifurcation; something as old as mechanics; it seems to me, taking two old ideas and putting them into one, no invention there, no inventive genius demonstrated." (Trans. pp. 34-35).

"I never had seen one of the Cleveland turners but I *presume* I had seen some of their literature. I wouldn't say that I hadn't, or I

wouldn't say that I had, because that is taking too much from memory, but I never had seen anything of their turners." (Trans. p. 36).

The earliest date he attempted to fix for knowledge of the Cleveland patent is that of August 20th, 1920, which is the date which appears on a report from patent attorneys, Siggers & Company, in Washington, D. C. (Defendant's Exhibit 21) (Trans. p. 36).

"We had been very careful not to, what would be termed, pirate on the trade, that is, steal some other manufacturer's ideas or designs. We claim that we build today the best and the most complete line of sawmill and shingle mill machinery that is built in the world, more modern, and we have tried to build it up by our own efforts, and attention and opportunities in the past and have been very careful to not try and steal someone else's ideas, and I might say in forty years we have been in business, this is the first time we were ever in court on infringement of a patent. We have endeavored to keep away from that, and, well, play the game fair, you might say, in business." (Trans. page 38).

Q. Did you receive any advice or notice from the plaintiff that you were infringing the Cleveland patent in suit?

A. Yes, I think we had a letter shortly, I would imagine shortly after the Murray people had purchased the patterns and drawings, and whatever it was from the Geddings & Lew-

is people, and saying that—calling to our attention that we were infringing, and I think we answered them back and cited the information that we had from Washington, and I would imagine that that was two or three or four years ago, sometime ago anyway; and I think that was the last that we ever heard from them until the action was commenced on this turner down here at—here in Oregon. (Trans. page 39).

On cross examination Mr. Sumner testified:

“To the best of my knowledge, as I remember it, the only time I have seen a log turner built along the lines of the Cleveland patent, was one that I was looking at down at Eureka, built and furnished by the Allis Manufacturing Company, who I understand are building under license with these people. I think that was—well, it was during this year. I couldn’t, without referring to some of my notes, expense accounts or something like that, designate the date. Now this—just let me think a minute, I think our records show that the Allis people have furnished six log turners built under the the license which they have from Murray and I am almost positive that the turner at Doliber-Carson, in Eureka, is the only turner that I have ever seen, built like the Cleveland.” (Trans. page 69).

There is no evidence to show that anyone connected with the defendant had any knowledge of the plaintiff’s machine when after a fire in 1913, which destroyed all their old patterns and everything

else, the Sumner Iron Works began to make changes in their line of manufacture. (Trans. page 32).

The evidence is all one way that the Sumner Iron Works *did not copy the device of plaintiff's patent*. Mr. Sumner above sets forth:

"I *presume* I have seen some of their literature. I wouldn't say that I hadn't or I wouldn't say that I had." (Trans. page 36).

What that literature, if anything, disclosed, does not appear. No serious attempt was made on behalf of plaintiff to find out on cross examination what the literature contained or that it had anything to do with the subject of the Cleveland patent in general or of claim 12 thereof in particular, which is the only one sued on.

We believe that the whole testimony upon this subject will satisfy this Court that the Sumner Iron Works, aided only by knowledge it possessed of the log turner shown in Defendant's Exhibit 27, and by general knowledge of mechanics as well as intimate knowledge of mechanics to the particular art to which it relates, did actually produce a duplicate of the machine described in the Cleveland patent. In other words, *defendant's machine is evidence in itself that it required nothing but mechanical skill and knowledge of the prior art to produce plaintiff's identical machine*. (See *Atlantic Works vs. Brady, In Fra*). After having so produced and having adopted the construction complained of in this suit, Defendant, Sumner Iron Works was committed to it temporarily but not because it was a form of machine which commanded their preference. On

the contrary the machine as shown in Defendant's Exhibit 22 and as shown in Defendant's Exhibit 31, is the one the Sumner Iron Works now makes.

The reason for the Defendant, Sumner Iron Works, adhering to the type of machine complained of was not only that it was a machine of their own production which they believed and were advised they had a right to use, but they were committed to it by their adoption directly after their fire in 1913. (Trans. page 32).

It was not until after the purchase of the Cleveland patent by plaintiff on March 30th, 1917, that they were advised that plaintiff held it to be an infringement of the Cleveland patent.

Witness Sumner testifies:

"It is a great expense to stop and abandon all of these patterns and jigs and drawings and bring out something new." (Trans. page 63).

This is an obvious fact and one in which in general the Court may take judicial notice.

It took seven years to make the change from the crooked bed to the straight bed. The first new type of machine was built and installed at Tacoma in the year 1923. (Trans. page 55).

Drawings, specifications and patterns for the same were made, Sumner testified, two years ago, maybe three years. (Trans. page 60).

It would appear nevertheless, that neither party exhibited the soundest judgment in designing this

machine and that the Cleveland machine is no better than an abandoned commercial experiment and that both of the parties have changed the manufacture to a machine not defined in claim 12 of the patent sued on.

Marler, (Trans. 86), Hines, (Trans. 128), Demangeon, (Trans. 143), all testified that the type of machine shown in Plaintiff's Exhibit 19 is the type of machine now being manufactured by the Allis-Chalmers Company, the exclusive licenses of the plaintiff. Hines says that the plaintiff is not now building any machines on account of competition and on account of the defendant's superior freight advantages over the East. They had furnished one for abroad but since acquiring the patent had only manufactured one machine to his knowledge.

The "superior freight charges" alleged by witness to be in favor of defendant, does not deter their licensee, the Allis-Chalmers Company, from selling their machines on the West Coast.

The Sumner Iron Works is now constructing the log turner shown in Defendant's Exhibit 22. (Trans. page 58). In respect to the differences of claim 12 of the plaintiff, and plaintiff's machine as now built and as shown in Plaintiff's Exhibit 19, we have the testimony of several witnesses as noted below.

Marler testifies, (Trans. page 87), that in the machine shown in Plaintiff's Exhibit 19 *there are two bearings connected with the bed-plate, instead of one.*

This is clear from the exhibit itself as well as from the testimony of all witnesses.

Cleveland insists in his deposition, (Trans. 165) upon the advantage of one bearing on the bed-plate instead of two, but plaintiff's expert, Hines states:

"I think myself that this construction here is the greatest advantage there is to the Cleveland patent; but it does not come up in this case, as *this is an afterthought and is not in claim 12.*" (Trans. 130-131).

Mr. Sumner, on behalf of the defendant, testified, in speaking of Defendant's Exhibit 22, being the machine which the Sumner Iron Works is now manufacturing, that the hook-arm and the push-arm is more substantial because the curves have been eliminated. And that is why they changed the bed because they have had so many breakages and undoubtedly the construction shown in Exhibit 22 overcomes these objections. (Trans. 50).

In Exhibit 22 the bearings of the bed-plate are outside of the push-arm bearings. Thus it appears that the defendant has abandoned the construction against which the infringement is alleged and in doing so located the cause of the breakage of the bed-plates and greatly relieved it. (Trans. 151-152).

ARGUMENT AND AUTHORITIES

The District Judge in his opinion deciding this case in the Court below aptly and succinctly stated what we believe to be the law of this case, when he said the Cleveland patent did not "involve invention or patentable novelty since there is no substantial

change in function, operation or result." Log turners operating in the same way were old in the art at the time that Cleveland made his application for a patent. Cleveland, himself, as well as all of the witnesses, admits that the operation of the Cleveland machine was substantially the same as that of the Simonson machine. Cleveland, himself, says that the purpose of his adoption was to get a wider bearing on the rock shaft so that his device would better withstand side shocks, and to build a machine having a stronger arm, either for the push-arm or hook-arm, and this he accomplished by having two bearings on the shaft in the place of one, or bifurcating the lower end of the arm. He also claimed that by putting the bearing at the end of the bed-plate in which the shaft rotated, in a center line with the cylinder, that he relieved certain of the strains upon the bed-plate. There is no claim upon the part of Mr. Cleveland or of any of the witnesses in this case, that the Cleveland machine functioned in any different way or turned the logs any more effectively (which is the only purpose of the machine) than the old Simonson turner.

At that there is a serious conflict of testimony as to whether Cleveland's idea, as embodied in his claim 12, made a stronger or better machine than the old machines, especially the old machine with the straight bed, illustrated by Defendant's Exhibit 27, shown on sheet 6 of the Supplemental Transcript. As to the wider bearing upon the shaft, Cleveland admits that he had seen a solid boss in which the shaft passed through on an old Simonson turner. (Trans. page 164).

There was convincing testimony to the effect

that this boss would give as wide a bearing on the surface of the shaft as the two bifurcated bearings. The boss is shown in evidence by Defendant's Exhibit 28, a wooden model of the push arm. If this arm should be inserted in the old machine, (Defendant's Exhibit 27), the boss would set on the rock shaft between the two bed-plate bearings and there was much testimony to the effect that the utility in operation of this machine would be at least equal to that of Cleveland's. Certainly its plan of operation would be identical.

Let us take a portion of the prior art (Defendant's Exhibit 27), with the arm and boss inserted. Cleveland reduced the two bed-plate bearings to one in the center, converting the boss to two bearings straddling the bifurcated arm in the center. This could not have been an invention in respect to the hook-arm for these arms had been bifurcated a long time before. Nor was it in respect to the push-arm. It was merely a re-arrangement of three old bearings, accompanied by an old bifurcation, calculated to turn logs in the same old way.

We contend, however, that the testimony does not establish in this case that the Cleveland type of turner was stronger than the old type. The plaintiff emphasizes its ability to stand side shock. Mr. Sumner points to actual experience of breakages of the shoulder of the bifurcated arms. He says that taking the twist out of the bed-plates was good mechanics but putting it in the arm was bad. The strength of Mr. Sumner's testimony lies in this admission of his own past mistakes.

Both Allis-Chalmers and the Sumner Iron Works

have abandoned the form of bifurcation existing in the Cleveland model. Both have abandoned the push-arm of the Cleveland machine. Allis-Chalmers retains it in the hook-arm. Some testimony was given that this change was made in order to permit the operation of a Hill nigger between the forks of the push-arm. However, as we have heretofore pointed out if this bifurcated arm straddling a single bearing was so much stronger than the straight arm with two bearings on the shaft, both of these manufacturers could easily have retained this type and placed the Hill nigger in another position outside of the arms where it would be just as effective as it would if it passed through the fork of the arm.

Without superior utility there can be no patent ability in a device improving upon earlier machinery and even if it had the patentability is impossible unless a new plan of operation is introduced. No novel operation with shown with respect to the Cleveland machine. We believe the patent in issue cannot be upheld for the reason as stated by the Court below—"that its function, operation and result is substantially the same as that shown in the old Simonson machines."

The straight bed-plate of the Cleveland patent, with a bearing on the shaft was old in the art. Whether there was one bearing or two would without question be a matter of mechanical change or judgment. The bifurcation of an arm was old in the art at the time of the Cleveland patent as well as the straddling of the bearing, by means of bifurcation.

In the case of Gilchrist vs. Mallory, 281 Fed.,

30, the only case cited by the Court below, it is held that the superior utility of a patent device is not conclusive as to its patentability and that a combination whose elements are old in the art is not patentable if the elements produce no new function and don't produce any new result. Further than this, this case is particularly in point, because it involved the question of the patentability of integral or non-integral parts.

Mr. Cleveland cannot and indeed does not claim that his patent is a pioneer patent in this art. He only claims to improve the old type of machine. For this reason Cleveland's patent should receive a strict construction. A pioneer patent has been defined in *Morely Machine Co., vs. Lancaster*, 129 U. S. 263, 273, as follows:

“Morely, having been the first person who succeeded in producing an automatic machine for sewing buttons of the kind in question upon fabrics, is entitled to a liberal construction of the claims of his patent. He was not a mere improver upon a prior machine which was capable of accomplishing the same general result; in which case, his claims would properly receive a narrow interpretation. This principle is well settled in the patent law, both in this country and in England. Where an invention is one of a primary character, and the mechanical functions performed by the machine are, as a whole, entirely new, all subsequent machines which employ substantially the same means to accomplish the same result are infringements, although the subsequent machine may contain improvements in the separate ma-

chanisms which go to make up the machine.”

Mr. Cleveland’s patent, if valid at all, would be a mere improvement patent such as is defined in *Winans vs. Denneed*, 15 Howard 330, 341, as follows:

“Patentable improvements in machinery are almost always made by changing some one or more forms of one or more parts, and thereby introducing some mechanical principle or mode of action not previously existing in the machine, and so securing a new or improved result.”

It has been frequently held that pioneer patents are entitled to a liberal construction. *McCormick vs. Talcott*, 20 Howard 402; *Sessions vs. Romadka*, 145 U. S. 29. On the other hand improvement patents receive a strict construction. *Rich vs. Baldwin*, 133 Fed. 920; *Sharp vs. Ballinger* 168 Fed. 295.

In the case of *Atlantic Works vs. Brady*, 170 U. S., 192, Justice Bradley in an opinion which he became a classic, sets forth some of the distinctions between invention and natural advancement and mechanical skill, in the following forceful and instructive language:

“The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials

and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in its principle and injurious in its consequences. The design of the patent laws is to regard those who make some substantial discovery or invention which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It is never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture. Such indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers, who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patent monopolies which enables them to lay a heavy tax on the industry of the country without contributing anything to the real achievement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexations accounting for profits made in good faith."

Conceding, for the purpose of argument, that the Cleveland log turner shows an improvement over the Simonson turner, this improvement was not patentable in view of the fact that the Cleve-

land turner operates in the same way as the Simonson turner and produces the same result.

In the case of *Western Electric Co. vs. Ansonia Brass Co.*, 114 U. S. 447, 451, the Court said:

“The Olmstead patent, therefore, covers an old process applied to the same subject, with no change in the manner of applying it, and with no result substantially distinct in its nature. It cannot, therefore, be a valid patent.”

In the *Packing Company Cases*, 105 U. S. 566, 571, Mr. Justice Woods said:

“All improvement is not invention, and entitled to protection as much. Thus to entitle it, it ought to be the product of some exercise of the inventive faculties, and it must involve something more than what is obvious to persons skilled in the art.” (citing cases).

In *Gardner vs. Herz*, 118 U. S. 180, 189, the court adopted language of the District Court as follows:

“Gardner merely applied a process that was old to a material that was old, to obtain an old form. Considered as a combination, it is hardly possible to believe that the perforations or the concavity performed any new functions in the Gardner seat. An ingenious feature has been presented, to the effect that the perforations and concavity co-operate, in Gardner’s seat, to prevent warping and curling of the ma-

terial used. If this is true, the same elements were combined in the Baillie chair-back and performed there the same functions they performed in the Gardner seat. It may be that the Gardner seat is mechanically a better seat than any which preceded it, but his improvement is not a patentable one. * * * *

In conclusion, in view of the former decision of this court, the complainant can only succeed upon the theory that, by imparting a concave form to his chair-seat, he has imparted sufficient patentable novelty to his article to sustain a patent; and this when such a form of chair-seat was old, the material used was old, and the method of imparting the form to the material was old. This theory cannot stand.
* * * *

The statute makes novelty and utility the only test of patentability. * * * * Unless substantially the same thing existed before, the article, if useful, is new and patentable. * * * *

On the other point presented it was said in *Thompson vs. Boisselier*, 114 U. S. 1, 11, that, under art. 1, sec. 8, subdivision 8 of the Constitution a patentee must be an inventor and he must have made a discovery; that the statute has always carried out this idea, referring to Sec. 6 of the act of July 4, 1836, 5 Stat. 119, and Sec. 24 of the act of July 8, 1870, 16 Stat. 201, and Sec. 4886 of the Revised Statutes; that 'it is not enough that a thing shall be new, in the sense that, in the shape or form in which it is produced, it shall

not have been before known, and that it shall be useful, but it must, under the Constitution and the Statute, amount to an invention or discovery.” A large number of cases in this court were there referred to, and one especially, where the thing claimed was new, ‘in the sense that it had not been anticipated by any previous invention, and it was shown to have superior utility, yet it was held not to be such an improvement as was entitled to be regarded in the patent law as an invention.’ A case to the same effect at this term is *Yale Lock Mfg. Co. vs. Greenleaf*, 117 U. S. 554.”

The distinction between mechanical improvement and patentable novelty is, of course, more or less indefinite, but the courts have laid down many principles for guidance.

In *Hollister vs. Benedict*, 113 U. S. 59, 70, 72, 73, holding unpatentable an improvement in the form of revenue stamps, the Supreme Court defined mechanical improvements in the following terms:

“In reaching this conclusion we have allowed its due weight to the presumption in favor of the validity of the patent arising from the action of the Patent Office in granting it; and we have not been unmindful of the fact, abundantly proven, and indeed not denied, that the adoption of the present taxpaid stamp, in lieu of that previously in use by the Internal Revenue Bureau, has proven its superior utility in the prevention of frauds upon the revenue. * * * *

Such an increased utility, beyond what had been attained by devices previously in use, in cases of doubt, is usually regarded as terminating the question of invention. But in the present case we are not able to give it such effect

* * * * *

It is but the display of the expected skill of the calling, and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice; and is in no sense the creative work of that inventive faculty which it is the purpose of the Constitution and the patent laws to encourage and reward."

In the case of *American Road Machine Co. vs. Pennock Co.*, 164 U. S. 26, 41 the Supreme Court said:

"Did increasing the weight of the hand-wheels in this class of road machines, in order to correct the tendency of smaller wheels to reverse, involve patentable novelty?

We do not think so. The use of hand-wheels as a substitute for straight levers in this class of machinery was old, and whether the wheels were light or heavy, (and heavy wheels were old), they alike performed the service of rotary levers. * * * * To make the hand-wheels heavier was to increase their capacity, but the same end was accomplished by substantially the same means. The means were

old, and their enlargement by a common method to attain a better result in the particular instance merely carried forward the original idea, and was nothing more than would occur to the experienced mechanic. * * * *

The substitution of the heavier wheel was not the product of a creative mental conception, but merely the result of the exercise 'of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice.'

In the case of *Sloan Filter Co. vs. Portland Gold Min. Co.*, 39 Fed. 23, 26, a patent exhibited the correction of a defect in a machine through mechanical ingenuity and was held invalid, the Court saying:

"The result of the application of the common skill and experience of a mechanic, which comes from the habitual and intelligent practice of his calling, to the correction of some slight defect in a machine or combination, or to a new arrangement or grouping of its parts, tending to make it more effective for the accomplishment of the object for which it was designed, not involving a substantial discovery nor constituting an addition to our knowledge of the art, is not within the protection of the patent law."

It is the contention of the defendant that the Cleveland log turner is substantially equivalent to the Simonson turners, because it operates in the

same way to do the same work. This is no less true if the court would be of the opinion that the Cleveland machine is a sturdier one and mechanically better, although this not admitted by defendant. The courts have defined mechanical equivalency and mechanical difference.

In *Machine Company vs. Murphy*, 97, U. S. 120, 125, the Court had the following to say of mechanical equivalency:

“Nor is it safe to give much heed to the fact that the corresponding devices in two machines organized to accomplish the same result is different in shape or form the one from the other, as it is necessary in every such investigation to look at the mode of operation or the way the device works, and at the result, as well as at the means by which the result is attained. * * * *

Authorities concur that the substantial equivalent of a thing, in the sense of the patent law, is the same as the thing itself; so that if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form or shape. Curtis, Patens (4th ed.) Sec. 310.”

In *Stephenson vs. Brooklyn R. R. Co.*, 114 U. S. 149, 154, the Supreme Court said:

“We find, therefore, that none of the separate elements of the devices described in the O’Haire patent are new, nor is the combination new. So far, therefore, we find no

patentable invention in the contrivance described in the patent under consideration. It was said by the court in *Smith vs. Nichols*, 21 Wall, 112, that a 'mere carrying forward a new or more extended application of the original thought, a change only in form, proportions or degree, the substitution of equivalents doing substantially the same thing in the same way by substantially the same means, with better results, is not such invention as will sustain a patent.' So in *Pennsylvania Railroad vs. Locomotive Truck Co.*, 110 U. S., 490, Mr. Justice Gray, delivering the opinion of the court said: 'The application of an old process or machine to a similar or analogous subject, with no change in the manner of application and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated. These authorities are pertinent. See also *Vinton vs. Hamilton*, 104 U. S. 485; *Blake vs. San Francisco*, 113 U. S. 679.

Vinton vs. Hamilton, 104 U. S. 485; *Blake vs. San Francisco*, 113 U. S. 679."

The mechanical difference between the arm and bearings of the Simonson turner and those of the Cleveland turner is that the latter are bifurcated, that is double made—in two parts. The courts have frequently determined that dividing an integral part or uniting several parts in one represents mechanical skill only.

In the case of *Howard vs. Detroit Stove Works*, 150, U. S. 164, 170, the Court said:

“As to the third patent, it is void because the claims in it were clearly anticipated, and because it involves no invention to cast in one piece, an article which has formerly been cast in two pieces and put together, nor to make the shape of the grate correspond with that of the firepot.”

General Electric Co. vs. Yost Electric Co., 139 Fed. 568, 570, the Court said:

“The prior art shows and the patent admits that such a lining in two pieces was old. That it does not involve inventions merely to make such a lining in one piece is well settled. *Howard vs. Detroit Stove Works*, 150 U. S. 164, 14 Sup. Ct. 68, 37 L. Ed. 1039 *Standard Caster & Wheel Co. vs. Caster Socket Co.*, 113 Fed. 162, 51 C. C. A. 109. Nor would the mere fact that the one-piece device was cheaper or more durable, constitute invention, when such results were merely such ordinary consequences of dispensing with joints as would naturally be anticipated by the workman. *Manufacturing Co. vs. Holtzer*, 67 Fed. 907, 15 C. C. A. 63. In *Standard Caster N Wheel Co. vs. Caster Socket Co.*, supra, the Court says:

“In *Manufacturing Co. vs. Holtzer*, 67 Fed. 907, 15 C. C. A. 63, the Circuit Court of Appeals for the First Circuit held that the right to improve on prior devices by making solid castings in lieu of attached parts is so common and universal in the arts as to cast a heavy burden upon anyone claiming patentability for such an

improvement to show special reasons in support of his claim.”

In the case of *Gates Iron Works vs. Overland Gold Min. Co.*, 147 Fed. 700, 703, it was held that making a hopper out of two parts was equivalent to making it all in one piece and constituted mechanical improvement only:

“The hopper formed of two angular sections does not alter the operation of the crusher, but in that respect performs the same function in the same way as did the hopper cast in a single piece, or formed of sections, separated by radial lines and bolted together, so the claim to invention lies entirely in so dividing the hopper and supporting the outer sections that the inner section overlying the spider rim may be handled, put in place, and lifted out of place independently of the other. Was this more than the employment of obvious mechanical expedients which would naturally occur to a skilled mechanic, or engineer in the intelligent practice of his calling? We think it was not. To divide into parts what cannot be conveniently handled as a whole, is elementary, if not instinctive, and to make the division of circular objects along circular lines has long been common.”

A change of form or of the arrangement of parts in a machine is a mechanical improvement and is not patentable, even though it involves actual improvement and makes the device more useful.

In *Curtis vs. Overman Wheel Co.*, 58 Fed. 784,

786, the Court held invalid an improvement in a bicycle pedal, saying:

“After the use of the old fluted or corrugated, double rotary pedals, with their narrow and partially rounded faces, which were not wide enough to secure the proper leverage, the broadening or widening of the working surfaces was a suggestion which was most natural and did not rise to the dignity of the invention.”

In *Lettelier vs. Mann*, 91 Fed. 909, 911, the Court said:

“The evidence satisfies me that complainant’s patent possesses advantages over the Weston machine in all the particulars mentioned, except as to the shoulders, about which there is doubt; but I am likewise satisfied that the Weston machine was successfully operated.

* * * *

Complainant has cited a great number of cases, involving changes of location, wherein the patents have been sustained. In most, if not all, of those cases, however, the improvements held to be patentable were believed by the court to involve something more than mere structural changes.”

In *Smith vs. Nichols*, 21 Wall. 112, 118, the Court said:

“A patentable invention is a mental result. It must be new and shown to be of practical

utility. Everything within the domain of the conception belongs to him who conceived it. The machine, process, or product is but its material reflex and embodiment. A new idea may be ingrafted upon an old invention, be distinct from the conception which preceded it, and be an improvement. In such case it is patentable. The prior patentee cannot use it without the consent of the improver, and the latter cannot use the original invention without the consent of the former. But a mere carrying forward or new, or more extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, is not such invention as will sustain a patent. These rules apply alike, whether what preceded was covered by a patent or rested only in public knowledge and use. In neither case can there be an invasion of such domain and an appropriation of anything found there. In one case everything belongs to the prior patentees, in the other, to the public at large."

The use of a bifurcated arm straddling a bearing appears at the time of the Cleveland patent, to have been old in the art of machinery construction, even if not in that of log turning machinery. It is not patentable invention, however, to adopt from the general machinery art, this device and incorporate it in a log turner, especially in view of the fact that the Cleveland log turner produced thereby, turns logs in substantially the same way as the Simonson turner.

In the case of *Brown vs. Piper*, 91 U. S. 37, 41, a patent for a fish preserver was held invalid by reason of a former patent for a corpse preserver, both embodying a chamber kept below freezing. It was contended that these were different arts but the Court said:

“The answer is, that this was simply the application by the patentee of an old process to a new subject, without any exercise of the inventive faculty, and without the development of any idea which can be deemed new or original in the sense of the patent law. The thing was within the circle of what was well known before, and belonged to the public. No one could lawfully appropriate it to himself, and exclude others from using it in any usual way for any purpose to which it may be desired to apply it.”

The above case has been cited on the same proposition time and again and the court is referred to 8 Rose's Notes 959. We quote from the case of *Fitzgerald Meat Tree Co., vs. Nelson Norris & Co.*, 142 Fed. 763, 765:

“The idea of hanging cuts of meat so as to permit a free circulation of air around each cut during the process of smoking, was old. Suspendable meat trees were old. The display rack of the construction shown in this patent was old. A mere increase of the size, weight, or strength of a device so that it can be adapted to analogous use is not invention. A patent for preserving fish in a close chamber, by means of a freezing mixture, having no con-

tact with the atmosphere of the preserving chamber, was held invalid as the adoption of an old process to a new subject; the prior art showing a patent for a similar process in preserving bodies before interment. *Brown et al vs. Piper*, 91 U. S., 37, 23, L. Ed. 200. Revolving castors being old, the Supreme Court in *St. Germain vs. Brunswick*, 135, U. S. 227, 10 Sup. Ct. 822, 34 L. Ed. 122, held there was no invention in constructing a revolving billiard cue rack. The combination in a savings bank of an inwardly extending tube and a circular row of integral teeth on the inner end of said tube, designed to prevent the withdrawal of paper money from said bank, has just been held by the Circuit Court of Appeals for this circuit in the case of *Burns Co. vs. Mills et al.*, 143 Fed. 325, to be the product of mechanical skill, and not invention in view of a similar mechanical form in animal traps. Surely the transformation of the familiar display rack to the meat tree, the adaptability of which to the use of hanging meats ought to suggest itself at once to any one knowing the need of such a meat tree, cannot be said to involve the inventive faculty, which is denied to the evolution of the rat trap into a saving bank."

The file wrapper of the Cleveland patent shows that the patent was granted as first applied for. The file wrapper is not an exhibit in this case, but it is conceded by counsel for Appellant that it contains no references. We have heretofore cited a number of cases holding that while a pioneer patent is liberally construed by the Courts in order to sustain the patent, a patent upon an improvement of

an old machine, is strictly construed. In addition to this we maintain that the presumption of validity which arises from the granting of the patent is seriously weakened by the failure of the file wrapper to show any references.

In the case of *American Soda Fountain vs. Sample*, 130 Fed. 145, 149, the Court uses the following language:

“We do not agree with the contention that the file wrapper discloses the patent to have been granted as first applied for, without any references, adds any force to the presumption of novelty arising from the grant. On the contrary, we think the force of that presumption is much diminished, if not destroyed by the lack of any reference by the examiner to, or consideration of, the ‘Clark’ patents. It does not seem likely that an expert examiner would pass them by without notice or consideration, if they had been called to his attention. We feel compelled, therefore, to the conclusion that the first and fifth claims of the patent in suit, are invalid for want of patentable novelty.”

Where the Patent Office failed to cite or consider pertinent references, the presumption of validity from grant of patent is seriously weakened.

American Can Co. vs. Goldee Mfg. Co., 290 Fed. 523, Citing *Cordley vs. Richardson Corp.*, 278 Fed 685, affirmed (2 C. C. A.) 280 Fed. 515.

See also:

Westinghouse Elec. Mfg. Co., vs. Toledo P. C. & Ry., 172 Fed. 371, 392. Elliott & Co. vs. Youngstown Car Mfg. Co., 181 Fed. 345, 349. Wm. B. Scaife & Sons Co. vs. Fall City Woolen Mills Co. 194 Fed. 139, 145.

The presumption of validity arising from the granting of a patent by the patent office is a mere rule of evidence which cannot usurp the judgment of a court.

“The presumption referred to is something defined to mean that the patent itself is prima facie evidence of novelty and of invention, but that presumption is probably a mere rule of evidence, which casts the burden of proof upon the alleged infringer. This presumption cannot usurp the province of the court to declare what constitutes novelty. The courts should give due consideration to the action of the patent office, but should not permit that action to control its deliberate judgment when it is manifest there is not invention. *Hollister vs. Manufacturing Co.*, 113 U. S. 59-71, 5 Supt. Ct. Rep. 717.”

J. J. Warren Co. vs. Rosenblatt, 80 Fed. 540-543.

“The patent office, however, has generally issued a patent to anyone who produced a device not before known, unless it was considered reasonably clear that such device did not involve invention. Therefore, in finding a remedy for the evils above stated, the courts have held invalid a large percentage of litigated patents.”

It must be conceded in this case that bifurcated arms straddling single bearings are old in mechanics and that bed-plates, straight and crooked, were old in mechanics at the time Cleveland made his application for a patent. Indeed the Appellant's counsel does not seriously controvert any of these statements. The basis for his claim for patentability seems to be solely based upon the fact that he tapered the straight bed-plate toward the front end and bifurcated the push arm so that it would straddle the bearing and it is this combination of old elements which he claims make the invention patentable. The straight bed-plate shown in defendant's exhibit, 27, could be easily designed by an offset in the side frames so that the push arm could straddle a single bearing. However, in the attempt to make this push arm straddle the single bearing, Cleveland tapered his bed-plate to a point at the front end. This seems to us is only such a construction as would occur to any ordinary mechanic, who desired to install a bifurcated push arm, straddling a single bearing. It was simply a combination of old elements which didn't produce any new results. We freely admit that an invention may embody old elements, but to be patentable it must produce some new or different result. This is not the case here, for this arm functions in the same way and produces the same result as was done with the old Simonson turner.

In the case of *Duer vs. Corbin Cabinet Lock Co.*, 149 U. S., 216, the Court uses the following language:

“All that he claims as invention is found in one or more of the prior patents.”

In the case of *Keene vs. New Idea Spreader Co.*, 231 Fed., 701, 708.

“Still, to insist that claims disclose invention or discovery where their substantial equivalency in elements, in mode of operation and results, plainly appear in two or more earlier patents or publications though not all in one patent of publication, is to ignore the very terms of the patent act. Above all, counsel’s theory is opposed to settled course of judicial decision.” (Citing with numerous quotations, U. S. and Fed. cases).

The case of *Huebner-Toledo Breweries Co. vs Matthews Gravity Carrier Co.*, reported in 253 Fed. at page 435, is a good illustration of the distinction which should be constantly kept in mind between the mere advancements of the art and actual invention.

In this case the patent under consideration was for a gravity carrier, consisting of side rails parallel to each other, having rolls between the rails and at right angles thereto made of hollow metal tubing. At each end of this tubing was a cone upon a rod which extended longitudinally through the center or axis of the cone. A cup bearing or track was provided at each end of the roll so as to form a race in which balls were placed so that the rolls had ball bearings, similar to those found in the ordinary bicycle.

In tracing the development of the prior art, the

Court found that each of the elements of the patent carrier could be found in some other article performing a similar function, for example, the ball bearing was referred to as performing the same function that it performed in the bearing of the bicycle. On page 446 is found the following language:

“It must of course be conceded that patentable novelty may exist in a combination of old elements, but here the combination claims in suit are lacking in the usual and essential tests of invention. No new functions of elements or new methods of operation is evolved, and the result achieved is exactly the same as the old one. The settled rule under such facts is that to adapt an old and familiar device to another structure equally old and well known, is not to exercise the inventive faculty; it is to apply the skill of the mechanic.” (Citing numerous cases).

Page 447:

“It is said appellee’s career is not anticipated by any single patent; but it is not necessary to show complete anticipation in a single patent. *The selection and putting together of the most desirable parts of different machines in the same or kindred art, making a new machine, but in which each part operates in the same way as it operated before and effects the same result, cannot be invention; such combinations are in the nature of things the evolutions of the mechanic’s aptitude rather*

than the creations of the inventor's faculty."

(Citing numerous cases.)

In *W. F. Burns Co. vs. Mills*, 143 Fed. 325 (7 C. C. A.) the Court *held a patent on a savings bank void for lack of invention in view of patent on a rat-trap*. In reaching the conclusion that the patent was void as being the outcome of the mere application of mechanical skill, the Court (page 328) said:

"Saving banks for home use, embodying mechanical means to prevent the coin deposited from being extracted, being old, the sole inquiry in the case under consideration is this: Is the transfer of the tube from the animal trap contrivances to the purposes of a home savings bank, so as to better enable such banks to become depository of bills, patentable invention? Is the conception of a savings bank with such a contrivance the product of inventive imagination?"

In the case of *Knapp et al. vs. Norse*, 150 U. S. 288, the umbrella was considered as a part of the prior art and operated to defeat the validity of a patent issued for a dress form in which rods or ribs were connected near the top and bottom extremities to braces or stretchers, which extended obliquely from the ribs to the standard and were there connected and hinged on small movable collars which encircled the standard, by the rising or lowering of which the form would be caused to expand or contract.

If Cleveland designed anything in the way of an

improved log turner, it was simply the result of mechanical skill. The central idea of his claim seems to be the forked arm straddling the bearing on the rock shaft and in order to effectuate this he tapered his bed-plate and now claims a patent because of the combination, but as we have heretofore said, this seems to us to show but the ordinary skill which a mechanic familiar with the operation of machines would produce. Court's don't extend benefits of the patent law to mere mechanical skill.

In *E. A. McMillian Co. vs. Androscoggin Pulp Co.*, 291 Fed. 134 (Advance Sheets), Judge Hale, for the District Court, S. D. Maine, (page 137) says:

“It is the duty of courts sitting in patent cases to recognize invention when they meet it; but it is also clear that it is their duty not to extend such recognition to mere mechanical skill.”

“The present hearing illustrates even more fully that the former hearing the necessity of requiring a patentee to reasonably limit his claims, so that they shall embody and specify elements essential to his actual improvement in the art. The right of a patentee to exclude others from the use of old and familiar mechanical combinations and structures must be carefully restricted. The duty rests upon the court to guard the public against that form of unjust monopoly, which may result from sustaining highly abstracted claims. The language of the Supreme Court in *Carlton v. Bokee*, 17

Wall. 463, 471, 21 L. Ed. 517, should always be in mind.

“ ‘We think it proper to reiterate our disapprobation of these ingenious attempts to expand a simple invention of a distinct device into an all-embracing claim, calculated by its wide generalization and ambiguous language to discourage further inventions in the same department of industry.’

“An attempt to save such claims by a beneficial interpretation is not only contrary to a well-established patent law, but a practical mistake. Patent claims are advisedly made by skilled solicitors, and if they choose to claim abstractions or high generalizations they must stand by them.

“As was said in *American Bell Tel. Co. v. National Tel. Mfg. Co.*, (C. C.) 109 Fed. 1043:

“ ‘The patent statutes requires the patentee himself to claim and define his invention, so that the public may know its right, and so that there shall not be imposed upon the courts the burden of constructing upon a hearing new claims from the interpretations that experts may place upon language of the most sweeping and general character.’

“What is prior art is a matter that cannot be determined arbitrarily, nor merely by a restriction of the claim to a special use.

“If the thing is old, and is applied to per-

form its old function, it remains in the prior art, and cannot be made novel, in the sense of the patent law, merely because used in new surroundings that do not affect its character or mode of operation.”

Robinson v. Tubular Woven Fabric Co., 248 Fed. 526, 541, 542.

The language of the Court in the case of Smith v. Nichols, 21 Wall. 112, 118, seems to us particularly applicable to the case at bar:

“But a mere carrying forward or new or more extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, is not such invention as will sustain a patent. These rules apply alike, whether what preceded was covered by a patent or rested only in public knowledge and use. In neither case can there be an invasion of such domain and appropriation of anything found there. In one case everything belongs to the prior patentee, in the other, to the public at large.”

A 1917 decision of the Supreme Court to the same effect as that last cited, is found in R.R. Supply Co. v. Elyria Iron & S. Co., 244 U. S., 285, 61 L. Ed. 1136.

In Galvin v. City of Grand Rapids, 115 Fed. 511, (6 C. C. A.) the Court, in a decision by Judge Day (page 517), said:

“Lynch carried forward the old idea by a mechanical change in one of the elements which produced better results. Such a change is not patentable. *Guidet v. Brooklyn*, 105 U. S. 550, 26 L. Ed. 1106. ‘Structural changes of form and proportion, although they improve the operation without changing the mode of operation, and produce a much better result, although one of the same kind, are only different and better forms of embodying the same idea, and illustrate the difference between mechanical skill and inventive genius.’ Rob. Pat. Sec. 38, note 1. ‘The law requires more than a change of form, or juxtaposition of parts, or of the external arrangements of things, to give patentability.’ *Reckendorfer v. Faber*, 92 U. S. 347-356, 23 Law. Ed. 719.”

“It must be conceded that a new combination, if it produces new and useful results, is patentable, though all the constituents of the combination were well known and in common use before the combination was made. But the results must be a product of the combination, and not a mere aggregate of several results each the complete product of one of the combined elements. Combined results are not necessarily a novel result, nor are they an old result obtained in a new and improved manner. Merely bringing old devices into juxtaposition, and there allowing each to work out its own effect without the production of something novel, is not invention.”

Hailes v. Wormer, 20 Wall, 353, 368.

In *Goodyear Tire & Rubber Co., et al v. Rubber Tire Wheel Co.*, 116 Fed. 363 (6 C. C. A.), the Court, following their decision in *Overweight Counterbalance Elevator Co. v. Henry Vogt Machine Co.*, 102 Fed. 957, reverses the court below and declares the patent sued on void for want of patentable novelty.

The Court (p. 371), uses the following language:

“Now, if Grant’s construction is an aggregation of well-known parts, each part doing its own appropriate function in substantially the old way, it does not show a patentable invention, even though the sum of all the old results is a tire more serviceable or durable than shown in the old art. *Hailes v. Van Wormer*, 20 Wall, 353, 22 L. Ed. 241; *Office Specialty Mfg. Co. v. Fenton Metallic Mfg. Co.*, 174 U. S. 498, 19 Sup. Ct. 641, 43 L. Ed. 1058; *Richards v. Elevator Co.*, 158 U. S. 299, 15 Sup. Ct. 31, 39. L. Ed. 991; *Overweight Counterbalance Elevator Co. v. Henry Vogt Mach. Co.*, 43 C. C. A. 80, 102 Fed. 949; *Smith v. Nichols*, 21 Wall. 112, 22 L. Ed. 566.”

In *American Laundry Machinery Mfg. Co. v. Adams Laundry Machinery Co.*, 161 Fed. 556, Ray, District Judge (p. 563) said:

“The test of invention is mental conception, not larger sales, or improved results, or benefits conferred on mankind. All these are evidence of invention, but not invention as the Supreme Court of the United States has re-

peatedly decided. To hold that a combination of old and well-known elements in the old way with some modifications to which the skill of the ordinary mechanic skilled in the art is adequate, unless to meet a new and novel exigency, it patentable for the reason the benefit to mankind is valuable and extensive, is to reward every mechanic for exercising his skill, not his mental conceptions, by a monopoly, and is a misconception and works a perversion of the patent laws."

In *Tubelt Co. v. Friedman et al.*, 158 Fed. 430, Judge Ray, for the Circuit Court of New York, (p. 439) said:

"It will not do to find patentable invention in a device or structure where all its elements are found in the prior art, and all the alleged inventor does to produce it is take one of the prior patented devices, and leave out one of its elements and substitute in place thereof a well-known equivalent taken from another device of the same kind, where it was used for the same purpose, operated in the same way, and produced the same results as is required in its new location, and the sole result of the substitution is that the substituted element operates or works a little better than did the displaced one and thereby the operation of the alleged new structure is somewhat improved. This is improvement, but not invention. It may be a successful experiment, but there is no novelty. 'While a combination of old elements producing a new and useful result may be patentable, if the combination is merely the assembling of old

elements producing no new and useful result invention is not shown.' Computing Scale Co. of A. v. Automatic Scale Co., 204 U. S. 609, 27 Sup. Ct. 307, 51 L. Ed. 645. To constitute improvements in invention they must be the product of original conceptions. Pearce v. Mulford, 102, U. S. 112, 118, 25 L. Ed. 93; Slawson v. Grand Street Railway, 107 U. S. 649, 2 Sup. Ct. 663, 27 L. Ed. 576; Munson v. N. Y. City, 124 U. S. 606, 8 Sup. Ct. 622, 31. L. Ed. 586."

In North Jersey St. Ry. Co. v. Brill, 134 Fed. 580, (3 C. C. A.) the Court (p. 584) said:

"The evidence, we think, fairly leads to the conclusion that the patentee, Brill, took the combination of Thyng's patent, but instead of using the latter's form of link, substituted therefor another form of link which had been commonly used for the same or analogous purposes, namely, an elastic or spring-controlled link, the character and function of which were well understood in the art. *This substitution may have secured better results, but it did not involve invention.* Stimson v. Woodman, 10 Wall. 117; 19 L. Ed. 866; Smith v. Nichols, 21 Wall, 112, 22 L. Ed. 566; Pennsylvania Railroad Company v. Locomotive Truck Company, 110 U. S. 490, 4 Sup. Ct. 220, 28 L. Ed. 222; Office Specialty Mfg. Co. v. Fenton Mfg. Co., 174 U. S. 492, 19 Sup. Ct. 641, 43 L. Ed. 1058."

In Bradley v. Eccles, 143, Fed. 621, (2 C. C. A.) the Court held the patent sued on to be void for want of patentable novelty, reversing the Court below as

reported in 138 Fed. 916.

The patent sued on was for a thill coupling in which the invention of said patent consisted in substituting a ball and socket joint in place of a straight bearing joint between the draft eye and the thill iron of a previous patent. The court (p. 522) says:

“Doubtless the change introduced practical advantages into the device of the Hannan patent. We are unable to discover, however, that the substitution involved invention. All that was required was to remove the Hannan coupling-pin and replace it with the ball, and recess the draft-eye so as to afford the corresponding bearing surface, to affect the substitution of a coupling device which was well known in the prior art, and which had long been employed as the joint in thill coupling devices. . . . When *transferred* to the Hannan devices the *ball and socket coupling did simply the same work* which it had done in the previous thill coupling devices, and *did not in the least affect the mode of operation of the other parts of the device*. Its location in its new environment evinced merely good judgment, and the slight changes necessary for the suitable adaptation of the associated parts evinced only ordinary mechanical skill. In short, the patentee invented no new device; he used it for no new purpose; he applied it to an old combination. All he did was to apply it to an old purpose in a different, but old, combination. This does not rise to the dignity of invention. *Mast, Fees & Co. v. Stover Mfg Co., 117 U. S. 493, 20 Sup. Ct. 708, 44 L. Ed. 856.*”

The broadening of the bearing on the rock shaft in Cleveland's patent does not constitute patentability.

In *Streit v. Kaiper*, 143 Fed. 981, (6 C. C. A.) the Court held the patent sued on void for lack of patentable invention in view of the prior art. The Court held that the invention of the patent sued on was (to quote the language of the Court at page 984) :

“a mere question of extent or degree, of an increase of the size of an existing device to more completely fulfill its purpose. The case falls within the rule of which there are numerous illustrations in the reports of the Supreme Court and of this court. Some of these are *Smith v. Nichols*, 21 Wall. 112, 22 L. Ed. 566; *Burt v. Every*, 133 U. S. 349, 10 Sup. Ct. 394, 33 L. Ed. 647; *Grant v. Walter*, 148 U. S. 547, 13 Sup. Ct. 699, 37 L. Ed. 552; *Market Street Railway Co. v. Rowley*, 155 U. S. 621, 15 Sup. 224, 39 L. Ed. 284; *Fox v. Perkins*, 52 Fed. 205, 3 C. C. A. 132; *Galvin v. City of Grand Rapids*, 115 F. 511, 53 C. C. A. 165; *Eames v. Worcester Polytechnic Institute*, 123 Fed. 67, 60 C. C. A. 37.”

In another case the Court said:

“Strengthening and reinforcing agents are improvements in any art but invention in such agents is to be found only in discovering a new principle, or employing new means embodying an old principle. *Turner v. Lenter Piano Company*, 248 Fed. 930, 161 C. C. A. 48; *Crouch v.*

Roemer, 103 U. S. 797, 26 L. Ed. 426; Star Bucket Co. v. Butler Mfg. Co. (D. C.) 198 Fed. 857; Walker Mfg. Co. v. Illinois Brass Mfg Co. (C. C. A.) 265 Fed. 279; Moline Plow Co. v. Omaha Iron Store Co., 235 Fed. 519, 149 C. C. A., 65; Miner v. T. H. Symington Co., 247 Fed. 515, 160 C. C. A. 25; Belsteel Co. v. Lorain Steel Co., 227 Fed. 240, 142 C. C. A. 30, Courts have often said that marked improvement and progressive steps in an art are not, in themselves evidence of invention. As industry progresses, more skill of the mechanic is expected. New Jersey Zinc Co. v. American Zinc Co. etc., Co., (D. C.) 276 Fed. 733, and cases cited."

E. A. McMillin Co. v. Andrescoggin Pulp Co. (supra) pp. 138-9.

The case of Minver v. T. H. Symington Co., 247 Fed., 515, cited in last quotation, is singularly in conformity in its facts with those of the case at bar.

One of the claims made by Counsel for Appellant is that the bed-plates in the Cleveland machine are identical and interchangeable. It is to be remembered in this connection that in the turners now being manufactured by both the Allis-Chalmers Company and the Sumner Iron Works, where a Hill nigger is used the push arm carries two bearings upon the rock shaft. So that the bed-plates in the case of these machines are not interchangeable and the item of expense because of that fact is eliminated.

The Appellant has cited a number of cases in his brief defining invention. Inasmuch as we have also cited a considerable number bearing upon the same question we will not attempt to analyze these

cases, except to call the Court's attention to the fact that the underlying principles running through all these cases is that in order to constitute invention there must be a new and beneficial result not before attained.

In this instance Cleveland does not even claim that he obtained any new result but simply claims that by widening the bearing upon the shaft and straightening out the bed-plate he had made a stronger machine. This, of course, is denied by the witnesses for the defendant with relation to the arm being stronger. The fact that the arm has been abandoned in the latter construction seems to us the strongest possible evidence that its increased strength was not sufficiently great to make it of particular value. Mr. Sumner's testimony as to the cause of the breakage of the bed-plates due to the pounding of the log upon the shaft when it was turned, seems to us the most reasonable explanation of these breakages. The danger of breakage from this pounding is eliminated in the later type of turners by the skid lifts which are not an issue in this case. Cleveland did not claim in claim 12 the combination of a tapering bed-plate. Any method by which the bifurcated arm straddled the bearing formed on the outer end of the bed-plate was open to use, according to his claim, and the fact that he did taper his bed-plate adds nothing to claim 12. In fact it will hardly be contended that straight bed-plates having been in use prior to his application, that he could by simply tapering his bed-plate obtain a patent upon it, or a patent upon any combination of such bed-plate with a single bearing. However, he did not claim this combination in his patent so it is not in issue in this case.

We will submit a brief analysis of the cases cited by the Appellant upon which its counsel seems mostly to rely.

In *Loom vs. Higgins*, 105 U. S. 591, the necessity for a new result is insisted upon in order to confer patentability on a new combination of known devices.

Counsel quotes in full the opinion in the case of *Kurtz vs. Belle Hat Lining Company*, 280 Fed. 277. It will be noted upon page 279 of this case that Kurtz obtained his patent over Rawak (cited against him of record) by a very frank statement in the office, which had objected that no mechanical advantage was pointed out.

So that in this case the patent office had had an opportunity to pass upon this patent after hearing between the original Patentee, Rawak, and the new applicant. However, an examination of this case discloses that Kurtz, by a new method accomplished a new and useful result.

“What Kurtz did was to wholly abolish the inserted material which makes Rawak’s ‘annular pocket’, and to take the cord (which may be used as a stuffing for Rawak’s pocket), and by one line of sewing unite crown, apron, and cord in such manner as to show the cord and form what he calls an ‘ornate seam’. (Page 279).

With reference to the case of *Ottumwa Box Car Co. v. Christy*, 215 Fed. 362, it is sufficient that the issue alleged was anticipation as the language

quoted in Appellant's brief sufficiently indicates. The issue in this instant case is a different one, namely, want of invention.

In *Inhaeuser v. Buerk*, 101 U. S., 647, the Court on page 656 holds that the use of mechanical equivalents performing the same functions cannot be regarded as an invention. It simply holds that one who has substituted another old ingredient for one of the ingredients of the patent combination is an infringer if the substitute *perform the same function* as the ingredient for which it is so substituted, and it appears that it was well known at the date of the patent that it was adaptable for other uses.

In case of *Warren Steam Pump Co. v. Blake & Knowles Steam Pump Works*, 163 Fed., 263, the Court holds (on page 280) :

“Whitting & Wheeler were the first to devise such a structure and that Hall & Gage were the first to devise a valve mechanism specially adapted to that structure, and that it was by these means that the problem of a high-grade air pump was successfully solved.”

The Court on page 277 says :

It is true the patents on their face, especially the Whitting & Wheeler patent, relate largely to structural details and the arrangement of different parts of the structure. It is also true that the patents do not mention any new mode of operation or any new results. In construing these patents, however, these considerations are immaterial provided the pump struc-

ture disclosed in the patents and covered by the claim *does in fact contain a new mode of operation, and does in fact produce new results.*"

The case of Diamond Rubber Company v. Consolidated Tire Co., 220 U. S., 428, is also cited in this brief, and it will be noticed that upon page 531 of this case the Court holds that the inventor produced an entirely new and different result, one probably not anticipated by him, but the fact that he might have produced this combination, not knowing the results, would not bar him from claiming his patent by virtue of the fact that he did actually produce a new and different result.

In the case of Neill v. Kinney, 239 Fed., 309, on pages 312 and 313, the Court says:

"While the disclosures of these prior patents may in one way or another have contributed elemental ideas to Neill's complete conception, they do not when aggregated disclose the Neill structure, nor did they suggest to others the possibility of his subsequent combination. It is not possible to combine any two of their elements and produce his structure, nor is it possible to produce it by combining all, unless they be substantially modified and a new element of 'two sets of perforated ears or flanges located substantially 90 degrees apart and each set providing three perforations arranged in vertical relation to each other' for girt and brace attachment, be added. Though elements of prior art patents are separately found in modified form in the Neill structure, these ele-

ments as combined by Neill resemble nothing before combined in the art."

The case simply holds to the old principle which we contend is that Neill in his combination of old elements, though in this instance he added a new element, produced a distinctly new and useful result.

In the case of Southern Textile Machinery Company vs. Fay Stocking Company, 259 Fed., 243, the claims in issue in that suit had been contested in the patent office and by reason of the action there taken by the successive tribunals, the claim had more than the usual support in the presumption of validity arising in issue. (page 245).

In the case of Sanders vs. Hancock, 128 Fed., 424, Hardy had set one disc in a different position from that of the position in the Niles patent. The court holds that there was no patentable novelty in the peculiar position of his disc.

So that in this instance the different positions of the hook arm in the Cleveland machine, it being placed in direct line with the center of the cylinder as differentiated from the old Simonson machine, would add nothing to the patentability of Cleveland's claim.

In the case of Turrill vs. Railway Company, 68 U. S., 510, on page 512 the Court says that the question should have been submitted to the jury whether the machine introduced by the defendants or any of them, or any of the prior movable press-blocks, (which were introduced to show the state of prior art). were substantially the same as the machine of the patentee.

There is no question at all in this case but that Cleveland's machine is substantially the same machine as the old Simonson machine.

In the case of Providence Rubber Company vs. Goodyear, 76 U. S. 788, the Court was apparently considering a pioneer patent's re-issue which was examined and passed upon by the Commissioner. (page 798).

Carnegie Steel Company vs. Carmbria Iron Company, 185 U. S., 403. This was a process patent and the Court in the syllabus says:

"A process patent is not anticipated by mechanism which might, with slight alterations have been adapted to carry out that process, unless such use of it would have occurred to one whose duty it was to make practical use of the mechanism described."

The language of the Court which the Appellant quotes in its brief is, of course, applicable to any invention.

The Appellant in its brief, on page 98, asserts that the Court below lost sight of the benefits of the greater strength and economy and the fact that a single casting could be used effectively for both arm units in the Cleveland machine. As we have heretofore contended, even if Mr. Cleveland's machine had greater strength and was more economical to construct, these facts alone would not confer patentability upon his design and this is the first time we have heard that a single casting could be used alone in the Cleveland machine. A single casting

of the old straight arm bed-plate would be applicable to both arm units and the push arm and the hook arm of the both machines, of course, would have to be cast separately.

Aside from this in the new construction adopted by the Sumner Iron Works and by the plaintiff's licensee, Allis-Chalmers Company, where the Hill nigger is used, a single casting cannot be used for both units for the bed-plates.

The case of *Los Alamitos vs. Carroll*, 173 Fed., 280, postulates a new result, the very thing lacking in the Cleveland patent.

In *Naylor vs. Alsop Process Co.*, 168 Fed., 911, the point in issue there was held by the Court to disclose both novelty and invention, and we submit a reading of the case will very clearly ustify the conclusion of the Court.

In the case of *Pelton Water Wheel Company vs. Doble*, 190 Fed. 760, it is to be noted that the claims of the Doble invention were unsuccessfully contested in the patent office. On page 766 the Court says:

"There is no doubt from the reading of the entire case that Dobbles's nozzle produced a substantially better result than had been accomplished by other combinations and marked a decided improvement upon any prior combination."

There is nothing in this case to show that Cleveland accomplished any better result from the operation of his machine than was done by the old Simon-

son turner. Indeed he only claims that he reduced the liability of breakage of the arms and the bed-plates, and we submit that the evidence in this case does not establish that Cleveland secured even these results by his combination.

From a comparison of the Cleveland patent with the state of the prior art we feel satisfied that the Court must reach the conclusion that he made only such a mechanical improvement as would occur to any mechanic familiar with log turners; that his improvement did not imply such creation as would fall within the term of patentable novelty; that it was a mere change of form or arrangement of the parts wherein there was no resulting change or improvement in the manner of the operation of the device.

We believe that the cases heretofore cited have established the rule of law that the making of two parts into one is a mere mechanical change and that adopting as a part for a certain article, a device familiar in another art, is not patentable even though the other art is not analogous. We believe further that the cases heretofore cited will establish that while courts will give pioneer patents the benefit of liberal construction, an improvement patentee will be strictly held to show in his claim the attainment of a substantially new form of operation with substantially improved results, and that if his machine is substantially equivalent in its operation and results with machines of a prior art, it cannot expect to find monopoly in the patent laws. As the Court below said of the Cleveland machine, "there

was no substantial change in function, operation or result.”

We respectfully submit that the decision of the lower court was right and should be affirmed.

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